DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-006100
Date Inspected: 17-Mar-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 645
OSM Departure Time: 1845
Location: Shanghai, China

CWI Name: See Below

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower Fabrication

Summary of Items Observed:
CWI Inspectors: Mr. Lin Yang, Mr. Wu Ming Kai

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Tower Bay 10

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Lift 2 North tower skin plate B complete joint penetration “T” welds NSD1-SA61F/G-7, NSD1-SA61E/G-13, and NSD1-SA61E/G-6. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Lift 3 North tower skin plate E complete joint penetration “T” welds NSD1-FESA3-1A/D-3, NSD1-FESA3-1A/D-4 and NSD1-FESA3-1A/D-5. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see

the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Lift 3 South tower stiffener to skin plate C complete joint penetration “T” weld NSD1-SA223-D/E-6. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Lift 3 North tower stiffener to skin plate D complete joint penetration C butt weld NSD1-FDSA3-1B/C-3. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder stencil 040475 is the using shielded metal arc welding process WPS-B-T-2211-B-U3B to make complete joint penetration tack weld SSDI-FESA3-1B/C-17B. The QA Inspector observed ZPMC Quality Control personnel measuring Mr. Jin Xiao Gang having a welding current of approximately 158 amps. The QA Inspector verified the base material adjacent to the weld had previously been preheated to a minimum of 110 degrees Centigrade and the welding electrode oven is plugged into electrical power and the electrodes are being kept hot. Items observed by the QA Inspector appear to comply with project specifications.

This QA Inspector observed ZPMC welder Mr. Jin Xiao Gang, stencil 053474 is the using the flux cored arc welding process WPS-345-FCAW-1G(1F)-Repair to make complete joint penetration weld repair SSDI-FDSA3-1B/C-8. The QA Inspector observed ZPMC Quality Control personnel measuring Mr. Jin Xiao Gang having a welding current of approximately 310 amps and 31.0 volts amps. QA Inspector verified the base material adjacent to the weld had previously been preheated to a minimum of 160 degrees Centigrade. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder stencil 040491 is using welding procedure WPS-B-T-3212-TC-U5b to make a shielded metal arc fillet weld on shear link weld WDI-A467-33M-3-83-184. The QA Inspector observed ZPMC CWI Mr. Wu Ming Kai measuring Mr. Xhao to have a welding current of 209 amps. Prior to welding the QA Inspector observed ZPMC personnel to be using a torch to preheat the base material adjacent to where the weld was to be deposited. Items observed by the QA Inspector appear to comply with project specifications.

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Lift 3 South tower skin plates B, C and D complete joint penetration “T” welds SSD1-FCSA3-1B/C-26-(1), SSD1-FESA3-1A/B-3 and SSD1-FDSA3-1B/C-14. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report and the photograph below.

WELDING INSPECTION REPORT

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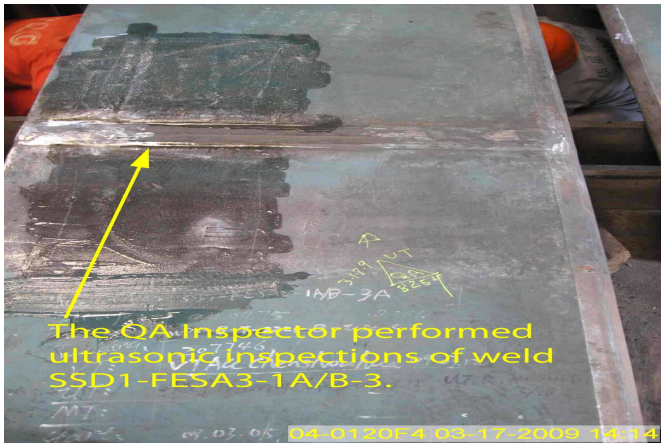

Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod phone: 134-8257-0045 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer